F. TRANSITIONING N1-1 TO OFF/DIAGNOSTIC/STANDBY FROM PRIMARY & N1-2 TO PRIMARY FROM STANDBY

1. VERIFY MDM STATES
PCS1   Node 1: C&DH: MDM N1-1

    | PRIMARY NCS MDM Node 1 |

    √STATE - Primary
    √MDM ID - N1-1

PCS1   Node 1: C&DH: MDM N1-2

    | SECONDARY NCS MDM Node 1 |

    √STATE - Standby
    √MDM ID - N1-2

> **NOTE**
> If states are not correct, do not execute
> this procedure, √**MCC**

2. DISABLE NCS AUTO RETRY
PCS1   Node 1: C&DH: MDM N1-2

    | SECONDARY NCS MDM Node 1 |
    'Software Control'

    sel MDM Utilities

    | Primary_NCS_MDM_Utilities |

    √Secondary_NCS_Auto_Retry_Inh - X (inhibited)

    If blank (enable)
        sel   Commands
        cmd Second_NCS_Inh_NCS_Retry **Execute**
      √Secondary_NCS_Auto_Retry_Inh - X (inhibited)

3. COMMAND N1-1 TO DIAGNOSTIC
PCS1   Node 1: C&DH: MDM N1-1

    | PRIMARY NCS MDM Node 1 |
    'Software Control'

    sel MDM FDIR
    √Prim_NCS_Cmd_Xsitn_to_Dgnstc_Inh - <blank> (enable)
    If X (inhibited)

        'MDM Major State'

sel   Commands
cmd N1-1_MDM_Cmd_Xsitn_Dgnstc_State_Arm **Execute**
sel   MDM FDIR
√Prim_NCS_Cmd_Xsitn_to_Dgnstc_Inh - <blank> (enable)

```
                        NOTE
1.  Sending the following command will
    cause the loss of PCS1, Early COMM,
    and OIU telemetry until OIU
    reconfiguration and PCS2
    reconnection are done.

2.  Possible PDI DECOM Fail message.
```

'MDM Major State:'

sel   Commands
cmd N1-1_MDM_Xsitn_Dgnstc_State **Execute**
√Frame Count - <static> (loss of PCS telemetry)

N1-2 should go to Primary State after 20 seconds.

4.   TELEMETRY RECOVERY ON PCS2

PCS2   After boot up, when taskbar appears at bottom of display
sel   Arrow directly above 'PCS' logo
sel   Start/Restart PCS CDS
sel   Icon to open PCS CDS Main Control Panel Window

√Status Box is Green and 'Connected' is displayed in the PCS2 CDS Main
 Control Panel Window

```
                        NOTE
PCS2 connection to MDM is indicated by 'Green' in the
Status Box and/or 'Connected' message displayed in the
PCS2 CDS Main Control Panel Window.
```

****
*   If Status Box is not Green, select 'Connect to MDM' icon   *
*   to reconnect.   *
*   If still no joy, close all displays and all iconified items and   *
*   repeat this step.   *
*   *
*   √**MCC** if Status Box is still not green.   *
****

5. <u>TELEMETRY RECOVERY ON EARLY COMM (GROUND ONLY)</u>

> NOTE
> Early COMM should reconnect to N1-2 MDM on the other Orb bus automatically in about 10 seconds after N1-2 MDM becomes Primary.

Node 1: C&DH: MDM N1-2
| PRIMARY NCS MDM Node 1 |

√Frame Count - <incrementing>

'MDM Major State:'

√MDM ID - N1-2
√MDM State - Primary

```
* ******************************************************** *
*  If Frame Count is Static after 20 seconds from   *
*    the moment N1-2 becomes Primary (no Early      *
*    COMM telemetry received), √MCC                 *
* ******************************************************** *
```

6. <u>TELEMETRY RECOVERY ON OIU</u>

> NOTE
> Possible PDI DECOM Fail message.

CRT | SM 212 OIU |

   BUS 3 BC - ITEM 11 EXEC
   BUS 4 RT - ITEM 14 EXEC
   Change OIU N1 Physical Device to N1-2 - ITEM 18 +<u>3</u> EXEC

CRT Reload OIU FORMAT 2 - ITEM 1 +<u>2</u> EXEC

CRT | SM 210 NODE |

   √PHY ID PRI MDM - N1-2
   √STATE - PRI
   √FAIL - <blank>
   √FRM CTR - <incrementing>

7. <u>VERIFY N1-2 IS PRIAMRY AND N1-1 IS IN DIAGNOSTIC</u>
PCS2 Node 1: C&DH: MDM N1-1
   | SECONDARY NCS MDM Node 1 |

   √Frame Count - <static>

PCS2   Node 1: C&DH: MDM N1-2
     | PRIMARY NCS MDM Node 1 |

     √Frame Count - <incrementing>

     'MDM Major State:'

     √STATE - Primary
     √MDM ID - N1-2

     sel Transmit Mode Code

     | Primary_NCS_Transmit_Mode_Code |

     sel 'Primary NCS Xmt Mode Code Commands'
     cmd Xmt_Stat_Word_Tmplt
     enter Bus ID - 2
     enter RT Address - 6 **Execute**
    √Subsystem Flag Set - X (set)

     If Subsystem Flag Bit is set, N1-1 MDM is in Diagnostic State and is
      ready to accept diagnostic commands.

     If transitioning N1-1 to Diagnostic, >>
     If powering off N1-1, go to step 8.
     If transitioning N1-1 to Standby, go to step 9.

    8. <u>POWERING OFF N1-1 MDM</u>
PCS2   Node 1: C&DH: MDM N1-1
     | SECONDARY NCS MDM Node 1 |
     'RPCM _N1RS1_A'

     sel RPC 11 (Nod1_1_MDM)

     | RPCM _N1RS2_A_RPC_11 Detail |

    √Position - CI
     sel Commands
     cmd Open **Execute**
    √Position - Op

     If powering N1-1 off, >>

    9. <u>TRANSITIONING N1-1 TO STANDBY STATE</u>
PCS2   Node 1: C&DH: MDM N1-2
     | PRIMARY NCS MDM Node 1 |
     'Software Control'

sel MDM Utilities
sel Commands

<div style="border:1px solid black; padding:10px;">

<u>NOTE</u>

1. Startup process will execute from the UAS currently loaded in DRAM.

2. No POST is performed.

</div>

cmd N1_1_MDM_Re_Init_MDM_DRAM **Execute**

Wait 60 seconds for MDM to reinitialize.

PCS2   Node 1: C&DH: MDM N1-1
      | SECONDARY NCS MDM Node 1 |

√Frame Count - \<incrementing\>

'MDM Major State:'

√STATE - Standby
√MDM ID - N1-1

```
* ********************************** *
*   If state is not Standby, √MCC  *
* ********************************** *
```